

Filter aid and method of using same for reclaiming water-based fluids used in metal working processes

Abstract

A filter aid and a method of using the same are disclosed that effectively removes contaminants from water-based metal forming liquids used in aluminum forming, rolling and other metal working processes. The filter aid includes a cellulosic material and a cationic polymer flocculating agent that is mixed with contaminated metal working fluid for a predetermined amount of time. The contaminated metal working fluid is then filtered through the filter aid, thereby removing the substantially all of the contaminants therein and allowing purified metal working fluid to return to the process system without carrying contaminants that will harm the surfaces of the metal being worked and the device that forms them. An acid material may be optionally added to the metal forming liquid, the acid serving to maintain the pressure and flow rate at normal levels by controlling clogging in the filter.